REMARKS

This is in response to the Office Action mailed 26 March 2007.

Claims 10, 13-15, 23 and 24

The Office Action indicates that claims 10, 13-15, 23 and 24 would be allowable if rewritten in independent form. These claims have been amended accordingly, and are submitted to now be in condition for allowance, which is respectfully requested.

Claims 1-9, 11 and 12

Claim 1 has been amended to clarify that the plurality of sensors of the sensor array are "configured to measure a plurality of gas concentrations **simultaneously**," and that the plurality of gas concentrations are measured "at the same time, **while maintaining a position of the sensor array**" (emphasis added). It is respectfully submitted that the cited references fail to teach or suggest the method of claim 1, as amended.

Pride et al. discloses a method of detecting a gas leak wherein a single sensor is exposed to the atmosphere at a plurality of locations about a reference point until the sensor detects the presence of a critical component above a threshold. The Office Action acknowledges that Pride et al. fails to teach or suggest an array of sensors, but alleges that it would have been obvious to provide a second sensor "in order to get an average or representative gas concentration reading." However, even if one were to modify Pride et al. to provide a second sensor, the resulting method would not have all of the features of claim 1, as amended.

For example, in Pride et al., the sensor may be exposed at a plurality of locations by "**sweeping the sensor** around the reference point and **continuously monitoring** the output thereof" (emphasis added, see page 5 - second paragraph). In contrast, as noted above, in the method of claim 1 the sensors measure a plurality of gas concentrations at the same time, without moving the sensor array. This provides an advantage over the method of Pride et al., since in the method of Pride et al. the sensor is moved from location to location, during which time the atmosphere around the reference point may be changing, resulting in potentially misleading sensor readings.

Gavlak et al. and Chudnovsky fail to remedy the deficiencies in the teachings of Pride et al.

Accordingly, it is submitted that claim 1, as well as claims 2-9, 11 and 12 which depend therefrom, are patentable over the cited references.

Claim 16

Claim 16 has been amended in a similar fashion as claim 1 to clarify that the plurality of sensors of the sensor array simultaneously measure the plurality of gas concentrations to create a local gas concentration profile. Accordingly, for at least the reasons set out above with respect to claim 1, it is submitted that claim 16 is patentable over the cited references.

Claims 17-22 and 25

Claim 17 has also been amended in a similar fashion as claim 1 to clarify that the plurality of sensors of the sensor array are configured to simultaneously measure the plurality of gas concentrations, and that the control system determines the local gas concentration profile based on the simultaneously measured gas concentrations. Accordingly, for at least the reasons set out above with respect to claim 1, it is submitted that claim 17, as well as claims 18-22 and 25 which depend therefrom, are patentable over the cited references.

Claim 26

New claim 26 has been added, which recites "a sensor array comprising a plurality of spaced-apart sensors configured to measure a plurality of gas concentrations simultaneously, and to generate a local gas concentration profile." The Applicant respectfully submits that claim 26 is also patentable over the cited references.

Conclusion

In light of the foregoing amendments and arguments, the Applicant submits that this application is in condition for allowance. The Applicant respectfully requests reconsideration and allowance of this application.

Respectfully submitted,

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